

Sadao SUZUKI*: A revision of the genus *Sasamorpha*
Nakai (Bambusaceae)

鈴木貞雄*: スズダケ属の再検討

When Nakai (1931) established newly the genus *Sasamorpha*, separating some species from *Sasa*, he compared it with its nearest genera *Sasa* and *Pseudosasa* as follows:

Sasa: Stem ascending often reflexed above sympodial. Node prominent. Leaves not shining much. Oral setae patent rigid scabrous. Veins of glumes more or less tessellate. Paleae all alike. Stamens 6.

Sasamorpha: Stem upright monopodial. Node not prominent. Leaves shining. Oral setae none. Veins of glumes parallel not tessellate. Paleae all alike. Stamens 6. Branches of style pilose or plumose.

Pseudosasa: Stem upright monopodial. Node not prominent. Leaves not shining much. Oral setae smooth waved. Paleae opposite to the interior glume twice as long as the rest. Stamens 3 (rarely 4). Branches of style plumose.

According to his description, *Sasamorpha* is nearer to *Pseudosasa* than *Sasa* in the vegetative parts, but *Sasamorpha* and *Pseudosasa* are clearly different from each other in the number of stamens. Nakai noticed that the veins of glumes of *Sasamorpha* are parallel and not tessellate, and regarded the fact as a fairly important characteristics of the genus, but in his paper "Bambusaceae in Japan Proper III" published three years later, he described that the exterior glume of *Sasamorpha* has tessellate veins. The present writer has also observed that not only the veins of exterior but also interior glumes are distinctly tessellate. Therefore no fundamental differences between *Sasamorpha* and *Sasa* can be seen as far as the floral characters are concerned. That fact seems to diminish the value of *Sasamorpha* as an independent genus. But the characters pointed out by Nakai that in *Sasamorpha* the rhizome is monopodial and the culm is upright,

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while in *Sasa* the rhizome is sympodial and the culm is ascending, are fairly important on the generic discrimination. The present writer proposes to add some characteristics on the vegetative parts of the genus to Nakai's descriptions mentioned above, comparing with *Sasa*.

As the culm-sheaths in *Sasamorpha* are longer than the internodes, so in the young shoots, the culms are completely covered with the culm-sheaths from the base to apex throughout, until the culm-sheaths deteriorate in later years, or are separated from the internodes by the branches. In *Sasa*, the culm-sheaths are always shorter than internodes, so the upper parts of internodes are disclosed.

The branches of *Sasamorpha* shoot out at a smaller angle than those of *Sasa*, about 10°, while in *Sasa* generally 20°-30°. The culm-sheaths of *Sasamorpha* are thicker and harder than those of *Sasa*, so after they are pushed out from the culms by the branches, wrap up almost completely the base of branches, as compared with *Sasa* whose culm-sheaths are merely pushed out, or penetrated at the dorsal side of the base by the branches, not wrapping up the base of branches (Fig. 1).

The leaves on the main culms or branches of *Sasamorpha* are small in number, usually 2-3, rarely 4-5. The laminae are hard and lustrous, slender (lanceolate to broad lanceolate), and very attenuately acuminate at apices. On the other hand, the leaves of *Sasa* are large in number, usually 7-9. The laminae are hard or soft, lustrous or lustreless, broader (oblong-lanceolate to oblong) and attenuately or abruptly acuminate at apices.

The characteristics mentioned above may not be necessarily enough to separate *Sasamorpha* from *Sasa* as an independent genus. But *Sasamorpha* is exactly distinguishable from *Sasa* at a glance in the fields and on specimen. The present writer thinks that we are unable to disregard such an intuition in the taxonomy. Consequently Nakai's *Sasamorpha* should be regarded as an independent genus.

The present writer wishes to express his sincere gratitude to Dr. Hiroshi Hara, Professor Emeritus and Drs. Hiroyoshi Ohashi and Hideaki Ohba in the University of Tokyo, and to Drs. Shiro Kitamura and Motoji Tagawa, Professors Emeriti and Dr. Kunio Iwatsuki, Professor in the Kyoto University, for giving him permission to inspect their valuable specimens and literature.

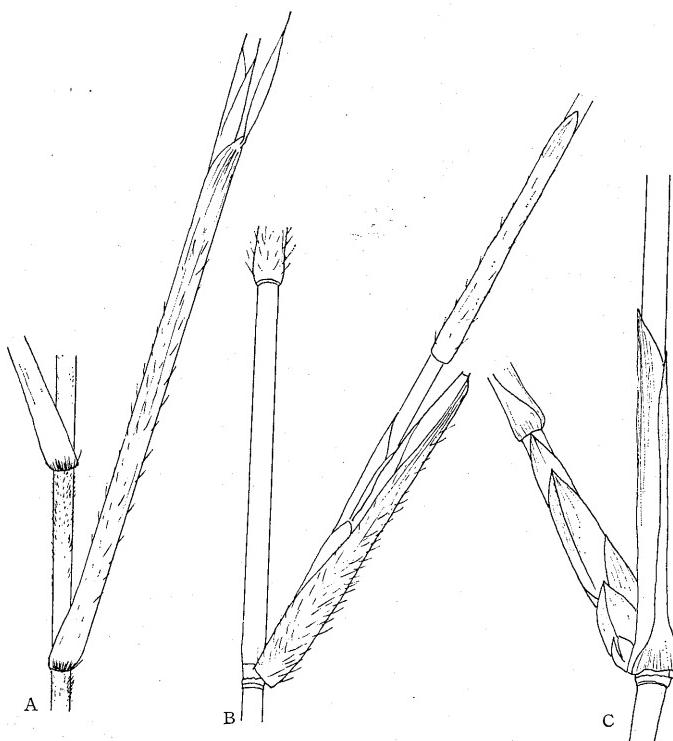


Fig. 1. Relationship between culm-sheath and branch. ca. $\times 1$. A. Culm-sheath in *Sasamorpha*, separating from the culm and wrapping up the base of the branch. B & C. Culm-sheaths in *Sasa*, pushed out by the branch, separating from the culm (B), and penetrated at the dorsal side of the base by the branch, culm-sheath remains intact (C).

Sasamorpha Nakai in Journ. Fac. Agr. Hokkaido Imp. Univ. 26: 180 (1931); in Rika-Kyôiku 15: 76 (1932); in Journ. Jap. Bot. 9: 150 (1933) et 10: 581 (1934).—Tatewaki in Hokkaido Ringyô-kaihô 38: 125 (1940).—Suzuki in Ecol. Rev. 15: 137 (1961).

Arundinaria (non Michaux) Hackel in Bull. Herb. Boissier 7: 716 (1899), pro *Arundinaria purpurascens*.

Bambusa (non Schreber) Hackel, l.c. 720, pro *Bambusa borealis*.

Arundinaria Michaux Sect. *Bambusoides* Makino in Bot. Mag. Tokyo 14: 20 in nota sub *Arundinaria borealis* (1900), pro parte.

Sasa Makino et Shibata in Bot. Mag. Tokyo 15: 18 (1901), pro parte.

Pseudosasa Makino in Journ. Jap. Bot. 2: 15 (1920). nom. nud. et 5: 15 (1928), lat. diag., pro parte.

Rhizome hypogaeous, creeping monopodial. Culms erect not ascending, 1-2 m in height, 4-7 mm in diameter, rameous at upper portion with a branch to a node, fistulous, antrorsely or retrorsely pubescent, sometimes glabrescent. Nodes flat, generally pubescent with antrorse long hairs at least at upper portion, rarely glabrescent. Culm-sheaths persistent, closely encircled, little longer than internodes, coriaceous, pubescent. When branches shoot out, the culm-sheaths wrap the bases of branches, separating from main culms. Oral setae lacking. Leaves palmately or pinnatopalmately arranged towards the top of culms or branches, 2-5 in number, coriaceous or chartaceous, lanceolate, attenuately acuminate with a very sharp point, lustrous on upper surface, glabrous on both surfaces, sometimes pubescent only beneath. Leaf-sheaths coriaceous, glabrous or pubescent. Scapes issuing laterally from branches. Inflorescence paniculate. Spikelets lanceolate, purple, 5-8 flowered. Bracts 2 at base of each spikelet, rather homomorphous, lanceolate to oblong-lanceolate, acuminate at apex. Glumes 2, exterior and interior, opposite, oblong-lanceolate to ovate, acuminate at apex. Interior glume sulcate on dorsal side, contact with rachis. Lodicules 3, ovate, thin and transparent, ciliated on margin. Stamens 6; filaments filiform; anthers linear, yellowish. Ovary ovoid, style 3-branched, plumose.

Type species: *Sasamorpha borealis* (Hackel) Nakai

Key to the species and varieties

- 1) Leaves entirely glabrous or sparsely puberulous with short hairs beneath, sometimes pilose with long hairs or puberulous with minute hairs beneath only at the base *S. borealis*
- 2) Leaves entirely glabrous beneath, or pilose with long hairs or puberulous with minute ones beneath only at the base.
- 3) Branches rather thicker, leaves larger and broader, lanceolate, generally coriaceous, thick and strongly lustrous upper.
- 4) Nodes densely pilose with antrorse long hairs at the upper part of culms at least. Leaves generally 2-3 in number on a culm or branch var. *borealis*
- 4) Nodes glabrous or puberulous with fine hairs. Leaves generally

- 4-5 in number on a culm or branchvar. *viridescens*
3) Branches slender, leaves smaller and narrower, angustately lanceolate, thin and rather lustreless uppervar. *angustior*
2) Leaves sparsely puberulous with short hairs (ca. 0.5 mm in length) beneathvar. *pilosa*
1) Leaves densely villose with a little longer hairs (ca. 1 mm in length) beneathS. *mollis*

Seven species, six varieties and two forms or more have hitherto been described under the genus from Japan and Korea. The present writer has revised taxonomically, and recognizes two species and three varieties as above. Being more data needed on Chinese species, the present writer will not take up them here.

With regard to the discrimination of species of the genus *Sasa* Makino et Shibata which is the nearest to *Sasamorpha*, the nature of the leaves and the hairiness in various portions of the plant are the most important criteria. Especially the nature of the hairs on the culm-sheaths is most relied upon to distinguish species. But in *Sasamorpha* the hairiness in various portions of the plant is very variable by individual, therefore the discrimination of species in *Sasamorpha* cannot be treated in the same way as in *Sasa*. In *Sasamorpha*, as to the hairiness on the culm-sheaths, several types can be seen from almost glabrous to densely villose including intermediate forms, but fundamentally there are merely two types. The one is pilose with long hairs (Fig. 2, A), and the other villose with long hairs mixed with retrorse minute ones all over the culm-sheaths (Fig. 2, B). Frequently the intermediate forms between A and B can be seen, namely pilose with long hairs on the whole surface mixed with retrorse minute ones only at the lower part or near the base (Fig. 2, C). These characters, however, belong to the individual variation, so they should not be taken into consideration in the discrimination of species. The amount of the hairs varies a great deal by individual and by the habitat, especially the seasonal change of the hairs is very remarkable. On the whole, the culm-sheaths have a tendency to be more hairy at the lower portions of culms and become less hairy, sometimes glabrous at the upper portions (Fig. 2, D & E). The internodes and leaf-sheaths are also variable from glabrous to densely hairy.

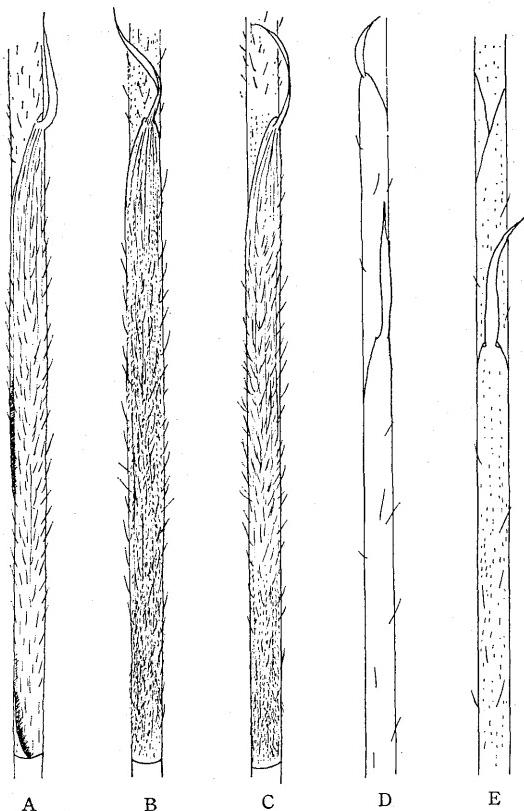


Fig. 2. Culm-sheaths in *Sasamorpha* showing the individual variation on the hairiness. ca. $\times 1$. A. Pilose with long hairs. B. Villose with long hairs mixed with retrorse minute ones. C. Pilose with long hairs all over the surface mixed with minute ones only near the base. D & E. Culm-sheaths on the upper portions of culms, sparsely pilose with long hairs (D), and thinly mixed with minute ones (E).

***Sasamorpha borealis* (Hackel)** Nakai in Journ. Fac. Agr. Hokkaido Imp. Univ. 26: 181 (1931).

Bambusa senanensis (non Franch. et Savat.) Matsumura, Nippon Shokubutsumei 27 (1884), pro parte, et Shokubutsu Mei-I 44 (1895).

Bambusa tessellata (non Munro) Matsumura, Catal. Pl. Herb. Coll. Sci. Imp. Univ. 237 (1886), pro parte.

- Arundinaria purpurascens* Hackel in Bull. Herb. Boissier 7: 716 (1899).
Bambusa borealis Hackel l.c. 7: 720 (1899).
Arundinaria borealis Makino in Bot. Mag. Tokyo 14: 20 (1900).
Bambusa purpurascens Makino in Bot. Mag. Tokyo 14: 62 (1900).
Sasa borealis Makino et Shibata in Bot. Mag. Tokyo 15: 24 (1901).—Matsumura, Enum. Pl. Omn. 2: 96 (1905).
Sasa spiculosa Makino in Bot. Mag. Tokyo 26: 12 (1912).—Camus, Monogr. Bamb. 18 (1913).
Sasa purpurascens Camus, Monogr. Bamb. 19 (1913).
Pseudosasa spiculosa Makino in Journ. Jap. Bot. 2: 16 (1920) et 5: 16 (1928).—Tatewaki in Report. Exp. For. Fac. Hokkaido Imp Univ. 5: 118 (1928).
Sasa spiculosa Makino var. *subpubescens* Makino et Uchida in Journ. Jap. Bot. 6: 24 (1929), syn. nov.
Sasamorpha purpurascens Nakai in Journ. Fac. Agr. Hokkaido Imp. Univ. 26: 181 in nota sub *Sasamorpha borealis* (1931); in Bot. Mag. Tokyo 46: 39 (1932) cum vars. *borealis* Nakai et *psilostachys* Nakai et fs. *macrochaeta* Nakai et *subpubescens* Nakai; in Journ. Jap. Bot. 9: 160 (1933) et Fl. Sylv. Korea 20: 29 (1933).—Tatewaki in Hokkaido Ringyô-kaihô 38: 126 (1940), syn. nov.
Sasamorpha amabilis Nakai in Bot. Mag. Tokyo 46: 37 (1932) et in Journ. Jap. Bot. 9: 158 (1933), syn. nov.
Sasamorpha chiisanensis Nakai in Bot. Mag. Tokyo 46: 38 (1932) et Fl. Sylv. Korea 20: 28 (1933).—Kawamoto, Chôsen Shinrin Shokubutsu Zusetsu 36 (1943), syn. nov.
Sasamorpha purpurascens Nakai var. *typica* Nakai, Fl. Sylv. Korea 20: 29 (1933), syn. nov.
Sasamorpha purpurascens Nakai var. *macrochaeta* Nakai in Journ. Jap. Bot. 11: 75 (1935), syn. nov.
Sasa Tobaeana Makino et Uchida in Bull. Sci. Res. Alum. Ass. Morioka Coll. Agr. For. 12: 83 (1936), syn. nov.
Sasamorpha purpurascens Nakai var. *hidakana* Tatewaki et Yoshimura in Goryôrin 138 (1939), syn. nov.
Sasamorpha purpurascens Nakai var. *borealis* Nakai f. *psilostachys* (Nakai) Tatewaki in Hokkaido Ringyô-kaihô 38: 131 (1940), syn. nov.

Sasamorpha Tobaeana (Makino et Uchida) Uchida ex Koidzumi in Acta Phytotax. Geobot. 10: 317 (1941), syn. nov.

Neosasamorpha Tobaeana (Makino et Uchida) Tatewaki in Hokkaido Ringyô-kaihô 38: 48 (1940), syn. nov.

var.*borealis*

Culms erect, attaining about 1.5-2 m height, 5-8 mm in diameter, rameose rather densely at upper portions. Culm-sheaths pilose with long hairs, sometimes mixed with retrorse fine ones. Internodes puberulous with retrorse minute hairs, frequently glabrescent. Nodes densely with antrorse long hairs. Leaf-sheaths usually purplish, puberulous with antrorse minute hairs, frequently glabrous. Leaves 2-3 in number, oblong-lanceolate to angustate-oblong, rounded or obtuse at base, attenuately acuminate at apex, thick and coriaceous, lustrous upper, subglaucous and entirely glabrous, or pubescent with long or minute hairs only at the base beneath. Oral setae lacking.

Nom. Jap.: Suzu-dake.

Distrib. Hokkaido and Honshu (Pacific side), Shikoku and Kyushu, Japan and C. & S. Korea.

As to the Japanese "Suzudake" group (*Sasamorpha*), Hackel (1899) first described two species, *Arundinaria purpurascens* and *Bambusa borealis* on the same paper, and next year, Makino (1900) newly combined the former as *Bambusa purpurascens* (Hackel) Makino, and the latter as *Arundinaria borealis* (Hackel) Makino. Subsequently Makino and Shibata (1901) made them into one species as *Sasa borealis* (Hackel) Makino et Shibata, and reduced *Arundinaria purpurascens* Hackel to its synonym. Therefore, according to the code of botanical nomenclature, *S. borealis* gained a priority.

Hackel's *Bambusa borealis* was based on the specimens collected at following three localities; by U. Faurie in the forest of Akkeshi, prov. Kushiro (no. 10899) and at Onikôbe, prov. Rikuzen (no. 576), and by K. Miyabe at Riruran, prov. Kushiro.

Hackel described in his original description as "Vaginae glaberrimae". Then many subsequent taxonomists misunderstand that the culm-sheaths of *B. borealis* are entirely glabrous. The type specimens from Akkeshi and Onikôbe reserved in the Kyoto University and the one from Riruran reserved in the University of Tokyo are rather time-worn plants with scapes. As it

is very common that the hairs of the culm-sheaths of the time-worn plants fall off, his description is unreliable. Actually, on the specimen from Onikōbe the culm-sheaths seems to be glabrous at first sight, but under careful observation, much curved stamps of long hairs can be seen there.

On the other hand, Hackel's *Arundinaria purpurascens* was based on the specimen collected by U. Faurie at Mt. Hayachine, prov. Rikuchū. In the original description, the culm-sheaths were described as "glabrae". The type specimen reserved in the Kyoto University is also time-worn plant with scapes, bearing no leaf.

After all, Hackel's type specimens of *B. borealis* and *A. purpurascens* are very incomplete, and those caused his erroneous description. In fact, all species of *Sasamorpha* have the pubescent culm-sheaths.

The greater part of *Sasamorpha* in Hokkaido and a part of it in Tohoku-district have thinly-hairy culm-sheaths, and the hairs are not so long (0.8-1.2 mm in length). Nakai's *Sasamorpha borealis* seems to be such a form, and vars. *angustior* and *viridescens* also show a tendency to have similar hairiness. On the otherhand, Nakai's var. *macrochaeta* has densely-pilose culm-sheaths with long hairs (1.3-2.0 mm in length), frequently mixed with retrorse minute ones.

After all, the degree of hairiness on the culm-sheaths of *Sasamorpha* shows a considerably wide range of variation; from thinly-pilose with a little shorter hairs to densely-pilose with a little longer ones, passing through various intermediate forms. So it is difficult to classify the species by the degree of hairiness on the culm-sheaths into separate taxonomic units.

The species has hitherto been separated each other on the infraspecific ranks by presence or absence of hairs on the basal portions of leaves beneath, viz. var. *borealis* is glabrous from the first, var. *macrochaeta* pubescent with long hairs, and f. *subpubescens* puberulous with minute ones. But these characters belong to the individual variation, so such a distinction is quite meaningless.

S. amabilis Nakai is separated from *S. borealis* by the albomargination of leaves in winter, but it seems to be caused by the ecological condition.

var. *angustior* (Makino) S. Suzuki, stat. nov.

Sasa spiculosa Makino f. *angustior* Makino in Journ. Jap. Bot. 5: 9 (1928).

Pseudosasa spiculosa Makino f. *angustior* Makino, l. c., pro syn. et in 5:

16 (1928).

Sasamorpha purpurascens Nakai var. *angustior* Nakai in Bot. Mag. Tokyo 46: 42 (1932) et in Journ. Jap. Bot. 9: 163 (1933).—Hara in Journ. Jap. Bot. 10: 521 (1934).

Sasamorpha gracilis Nakai in Bot. Mag. Tokyo 46: 38 (1932) et in Journ. Jap. Bot. 9: 155 (1933).—Koidzumi in Acta Phytotax. Geobot. 8: 201 (1939).—Kawamoto, Chōsen Shinrin Zusetsu 38 (1943), syn. nov.

Branches slender. Leaves narrower, linear-lanceolate, 17–22 cm in length, 20–27 mm in width, thin and chartaceous, somewhat lustreless upper, obtuse or rounded at base, longly attenuate at apex.

Nom. Jap.: Hosoba-suzu-dake, Hosoba-suzu.

Distrib. All over the range of the typical variety.

The variety may be a juvenile form or a form growing in the shade of the typical variety, as some taxonomists think. But until the facts are clarified, the present writer wishes to leave it as it is, except transferring from *S. purpurascens* to *S. borealis*.

The variety, however, is distinguishable from the juvenile form of the typical variety, by having slender branches, narrower and thinner leaves even if it attains full growth bearing scapes, or grows at sunny place.

S. gracilis Nakai reported from Mt. Kōyasan, prov. Kii is entirely conspecific with the variety.

var. *pilosa* (Uchida) S. Suzuki, comb. nov.

Sasa Tobaeana Makino et Uchida var. *pilosa* Uchida in Bull. Sci. Res. Alum. Ass. Morioka Coll. Agr. For. 12: 83 (1936).

Sasamorpha Tobaeana (Makino et Uchida) Uchida var. *pilosa* (Uchida) Uchida ex Koidzumi in Acta Phytotax. Geobot. 11: 3 (1941).

Leaves thinly puberulous with minute hairs beneath. Otherwise as in the typical variety.

Nom. Jap.: Urage-suzu-dake (nov.), Urage-inu-suzu.

Specim. exam. Japan. Honshu. *Rikuchū*: Shinogi, Takizawa-mura (H. Muroi, Oct. 1937 et G. Koidzumi, Aug. 1941—KYO). *Hitachi*: Mt. Nandai (H. Tsurumachi, Sept. 1933—KYO).

Kyushu. *Hyūga*: Mt. Kirishima (S. Kitamura, Jul. 1944—KYO).

Distrib. Japan. N. & C. Honshu (*Rikuchū* and *Hitachi*) and Kyushu (*Hyūga*).

This variety slightly differs from the typical variety by the leaves thinly puberulous with minute hairs beneath. The hairs are so inconspicuous that the variety is liable to be overlooked being mistaken for the typical variety in the fields. Such a fact may be the cause why only a few habitats of the variety are hitherto known.



Fig. 3. *Sasamorpha borealis* var. *viridescens* (Nakai) S. Suzuki. Mt. Higashiyama, 400 m alt., Isl. Hachijo, prov. Izu (31, Aug. 1966—Suzuki).

var. ***viridescens*** (Nakai) S. Suzuki, comb. nov. (Fig. 3)

Sasamorpha purpurascens Nakai var. *viridescens* Nakai in Bot. Mag. Tokyo 46: 42 (1932) et in Journ. Jap. Bot. 9: 163 (1933).

Culms greenish or purplish. Nodes glabrous or puberulous, lacking long hairs, even on the upper portions of the culms. Leaves larger in number, usually 4-5, sometimes 6.

Nom. Jap.: Hachijō-suzu-dake.

Specim. exam. Japan. Honshu. Izu: Mt. Higashiyama, Isl. Hachijō (T. Nakai, Jul. 1930—type in TI); ibid. 350 m et 400 m (S. Suzuki, Aug. 1966—Hb. Tamagawa Univ.). Mt. Miharayama, 600 m, Isl. Hachijō (T. Horie, Oct. 1972—Hb. Tamag.). Mt. Oyama, Isl. Mikurashima (N. Satomi, Mar. 1960—Hb. Tamag.). Mt. Takaraba, Isl. Niijima (H. Takahashi, Sept. 1967—

Kanagawa Museum). *Kii*: Kizetsukyō, Tanabe (S. Suzuki, Mar. 1935—Hb. Tamag.).

Kyushu. *Satsuma*: Honda, Kajiki-machi, Aira-gun (M. Heki, May 1964—Hb. Tamag.).

Distrib. S. Honshu and Kyushu, Japan.

Nakai described in his original diagnosis as "Culmus, vagina et folia toto glabra et viridissima". The type specimen reserved in the University of Tokyo is just the same with his diagnosis. But at the type locality, Mt. Higashiyama, Isl. Hachijō, the individuals with greenish culms and the ones with purplish culms like the typical variety grow together, and the degree of hairiness on the culms, especially on the culm-sheaths varies remarkably, from rather densely-pilose to thinly-pilose or glabrescent. Even if the culms seem to be glabrous at a glance, the culm-sheaths of lower portion are pilose at least. So far as the present writer investigated there in 1966, the plant with entirely glabrous culm-sheaths could not be found.

Nakai (1933) notes that in Isl. Hachijō var. *viridescens* and var. *borealis* (Nakai's var. *purpurascens*) occur. Whereas on the present writer's botanization, he could not find out var. *borealis* there, and has never seen the specimen from there, too. The occurrence of it, however, is not thoroughly unexpectant. Nakai must have thought the plants with purplish culms at Mt. Higashiyama as var. *borealis*.

The characteristics of var. *viridescens* pointed out by Nakai are unstable, and do not suit a fact. As the result of the examination of the type specimen and many materials at the type locality, the differences are the two points; the leaves are unusually large in number 4-5, and the nodes are entirely glabrous, lacking long hairs. In *Sasamorpha*, the species or varieties other than this variety have always pilose nodes.

2. *Sasamorpha mollis* Nakai in Bot. Mag. Tokyo 46: 39 (1932); Journ. Jap. Bot. 9: 158 (1933).

Sasamorpha sikokiana Koidzumi in Acta Phytotax. Geobot. 6: 78 (1937), syn. nov.

Leaves densely pubescent with soft hairs beneath. Otherwise quite as in *S. borealis* (Hackel) Nakai.

Nom. Jap.: Ke-suzu.

Specim. repres. Japan. Honshu. *Rikuchū*: Imoda, Tamayama-mura, Iwate-

gun (M. Kikuchi, Nov. 1959—Hb. Tamagawa Univ.: northern limit). *Rikuzen*: Kariganemori, Matsushima (T. Nakai, Nov. 20, 1929—type in TI). *Iwaki*: Mt. Ohtakine (S. Suzuki, Nov. 1957—Hb. Tamagawa Univ.). *Iwashiro*: Mt. Ryôzen (D. Hoshi, Oct. 1941—KYO). *Musashi*: Hikawa, Okutama (M. Uchida, Jun. 1959—Hb. Tamag.). *Shinano*: Matsukawa-machi (M. Muramatsu, Sept. 1957—Hb. Tamag.). *Sagami*: Hakone (S. Suzuki, Jul. 1970—Hb. Tamag.). *Settsu*: Mt. Katsuodera (N. Ui, Aug. 1935—KYO). *Suô*: Iwakuni (H. Masaki, May 1970—Hb. Tamag.).

Shikoku. *Iyo*: Mt. Ishizuchi (G. Koidzumi, Aug. 8, 1934—type of *Sasamorpha sikokiana* Koidz. in KYO: southern and western limit).

Distrib. Honshu (Pacific side) and Shikoku, Japan.

This species is well characterized in having densely pubescent leaves beneath. *S. sikokiana* Koidzumi reported from Mt. Ishizuchi, prov. Iyo is quite conspecific with *S. mollis*.

Generally from the phytosociological viewpoint, *Sasamorpha* is very important element, especially for the *Fagus crenata* forest. The *Fagus crenata* forest in Japan is divided into two, *Sasamorpheto-Fagetum crenata* and *Saseto-Fagetum crenata* (*Fagus crenata*—*Sasa kurilensis*). The former is predominant on the Pacific side of Japan, less snowy region (less than ca. 75 cm in the mean annual maximum depth of snow-cover), and the latter is predominant on the Japan Sea side of Japan, more snowy region (more than ca. 50 cm).

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スズダケ属 *Sasamorpha* は中井猛之進博士(1931)によってササ属 *Sasa* のなかの少数種を分離して設立された。ササ属は地下茎が仮軸分枝をなし、稈が斜上するのに對して、スズダケ属は単軸分枝をなし、稈は直立。またスズダケ属は稈鞘が節間より長く、從って稈全体が稈鞘で被われ、節間が全く露出しない。質が硬く、枝ができると、主稈から離れて枝の基部をかたく巻く特性がある。節は膨出せず平坦である。それに対してササ属は稈鞘が節間よく短く、從って各節間の上端が露出する。枝はその節の稈鞘を外方へおしやるだけで、枝の基部を巻くことはない、または稈鞘の基部背面を貫通し、稈鞘はそのまま主稈に残る。そのほかスズダケ属は葉の数が少く、2-3枚まれに4-5枚で、先端が長く漸次とがる。また肩の毛がない。野外でも標本でも一見してササ属とは見分けがつく。

スズダケ属は日本と朝鮮から、従来 7種・6変種・2品種が報告されたが、筆者は種としては葉の裏に毛がないスズダケ *S. borealis* (Hackel) Nakai と、葉の裏に毛があるケスズ *S. mollis* Nakai の 2種に整理し、スズダケにホソバスズ var. *angustior* (Makino) S. Suzuki, ヴラゲスズ var. *pilosa* (Uchida) S. Suzuki, ハチジョウスズ var. *viridescens* (Nakai) S. Suzuki の 3変種を認めることにした。